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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/821,722

03/29/2001

Martin R. Handforth

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09/21/2004

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EXAMINER

NORRIS, JEREMY C

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,722

Applicant(s)

HANDFORTH ET AL.

Examiner

Jeremy C. Norris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-33 is/are pending in the application.
- 4a) Of the above claim(s) 7-11 and 14-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 12, 13 and 29-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 6 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,061,246 (hereafter Oh).

Oh discloses, referring to figures 3-5, an interconnection device comprising: first and second outer layers (121), each including substrate material; and at least one inner layer (122) including at least one conductive signal trace (141) disposed on substrate material proximate to an edge of the interconnection device and being accessible for direct electrical connection with a corresponding exposed signal trace (13) wherein at least one conductive protrusion (132, see col. 6, lines 20-25) is formed on said conductive inner layer trace [claim 1], wherein said conductive inner trace layer trace extends outward from the edge of the interconnection device [claim 2], wherein at least a portion of said first outer layer is removed to provide access to said conductive inner layer trace [claim 3], wherein said protrusion is malleable [claim 5], wherein said

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protrusion is resilient [claim 6], wherein said inner layer substrate material is organic (see col. 4, lines 40-45) [claim 13]

Claims 12 and 29-33 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,209,671 (hereafter Sugimoto).

Sugimoto discloses, referring to figure 1, an interconnection device comprising; first (12) and second (5) outer layers, each including substrate material; and at least one inner layer including at least one conductive signal trace (see col. 3, lines 5-15) disposed on substrate material proximate to an edge of the interconnection device and being accessible for direct electrical connection with a corresponding signal trace, wherein said inner layer substrate material is a ceramic (see col. 4, lines 15-25) [claim 12], wherein said conductive inner layer trace extends outward from the edge of the interconnection device [claim 29], wherein at least a portion of said first outer layer is removed to provide access to said conductive inner layer trace [claim 30], wherein at least one conductive protrusion (13) is formed on said conductive inner trace [claim 31], wherein said protrusion is malleable [claim 32], wherein said protrusion is resilient [claim 33].

Response to Arguments

The Final Rejection of claims 1-3, 5, 6 and 13 over Oh in the Office Action was erroneous. Examiner is persuaded by Applicant's argument that the "elements (142) are merely connecting pads" and as such "the pads (142) are simply traces without protrusions". Examiner's assertion that elements 142 met the limitation of "at least one conductive protrusion" was a typographical error as elements 132 are the "conductive

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protrusions as noted above in the instant rejection. For this reason, the Final Action of 13 July 2004 is **VACATED**. Regarding claims 12 and 29-33, Applicant argues that because Sugimoto discloses "a flexible wire connector (101) that is used to bridge the terminals" Sugimoto fails to disclose a signal trace "accessible for direct electrical connection with a corresponding trace". However, this argument is not found persuasive because the limitation that the signal trace be "accessible for direct electrical connection with a corresponding signal trace" is a recitation of the intended use of the claimed invention. A recitation of the intended use of the must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In the instant case, although Sugimoto teaches using an intermediate connector, it would have been obvious, to one having ordinary skill in the art, at the time of invention, that the structure of Sugimoto is capable of being "accessible for direct electrical connection with a corresponding signal trace. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Moreover, Applicant's argument that "As shown in Fig. 2 of this application, the connected traces themselves are mated" is an argument directed to features which are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

With the Office Action of 13 July 2004 having been vacated, Applicant's amendment of 27 April 2004 has necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

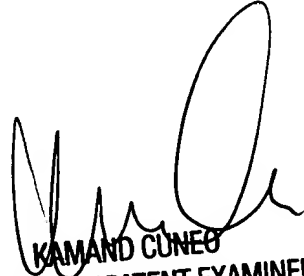
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is 571-272-1932. The examiner can normally be reached on Monday - Friday, 9:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCSN



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